

F70

PATENT SPECIFICATION

(11) 1 476 848

1 476 848

- (21) Application No. 22866/75 (22) Filed 23 May 1975
(31) Convention Application No. 2425895
(32) Filed 30 May 1974 in
(33) Federal Republic of Germany (DT)
(44) Complete Specification published 16 June 1977
(51) INT CL³ G07F 17/34
(52) Index at acceptance
G4V H8

(19)



(54) COIN-FREED GAMING DEVICE

(71) We, LÖWEN-AUTOMATEN-GERHARD W. SCHULZE of 20—30 Im Tiergarten, 6530 Bingen 12, Federal Republic of Germany; a German Company, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The invention relates to a coin-freed gaming apparatus, having a plurality of rotatable symbol carriers, in which a win or loss condition is determined by predetermined combinations of symbols indicated on the rotatable carriers when at rest.

Such coin-freed gaming machines are known in various forms. Generally the gaming apparatus has three rotatable carriers which may be cylindrical or disc-shaped and on their circumference are provided with symbols. On insertion of a coin, the rotatable carriers are rotated and due to suitable braking devices come successively to rest, whereby on coming to rest a symbol combination appears in a window. This combination is formed of a symbol shown on each carrier. Of the possible symbol combinations only combinations shown on a win plan displayed on the apparatus are designated win combinations and, when they appear in the reading window, the device pays out a win in accordance with the given winning combination.

In order to attract a player to use the device and to entertain him during play different measures have already been adopted. Thus, for example, the individual rotatable symbol carriers have had actuatable switching members associated therewith which permit the symbol carriers to be individually controlled in that the individual rotary bodies are prematurely braked, or after coming to rest determined by the gaming device can be restarted. In this manner the player is able by his own interference with the action of the game to

vary it. This presents the player with the necessary entertainment, whilst the player is convinced that by actuating the additional switching that is able to influence the game in his favour. Therefore the additional actuating members for the individual symbol carriers are in common use.

A coin-freed gaming device is already known in which a plurality of reading windows are provided which, when the rotating symbol carriers come to rest several symbol combinations are displayed of which, however, only one is decisive for ascertaining a win. In another gaming device any player can ascertain at any time how many losing games have lapsed since the last winning game. Herein a device controllable by the rotatable carriers is provided for recording and indicating the games, whereby this device for recording and indicating the number of winless games or failures since a winning game has occurred.

The object of the invention is to provide a more interesting action of play in these known gaming devices and hence to offer the player better entertainment and hence a greater incentive to play in that the play sequence provides a more varied play and additional possibilities of winning.

According to the present invention there is provided a coin-freed gaming apparatus in which a win or loss is indicated by one of a predetermined combination of symbols indicated on rotatable symbol carriers, wherein a rotatable indicator member is associated with each carrier and has a recess corresponding to a particular symbol, in which recess a feeler lever is engageable, each feeler lever is connected to a contact means for energising a magnet stepping mechanism for rotating a roller member controlling or bearing additional indicator means or symbols.

The present invention will be described further, by way of example, with reference to the accompanying drawings, in which:—

Fig. 1 is a schematic view of a gaming

apparatus in accordance with the invention;

Fig. 2 is a schematic view of an alternative form of gaming apparatus in accordance with the invention;

Fig. 3 is a view to an enlarged scale showing switching means of a roller of the device shown in Fig. 1; and

Fig. 4 is a view to an enlarged scale showing switching means of a series of lamps of the device shown in Fig. 2.

A gaming device 1 shown in Fig. 1 is provided with three disc-shaped rotatable symbol carriers 3, 4, 5 each of which carries a plurality of symbols. A coin slot 6 is provided in the top right hand corner of the front of the apparatus and a pay-out tray 7 is provided at the bottom of the front of the apparatus. Above the pay-out tray 7 there are switch members 8, 9, 10 used for controlling (i.e. braking or restarting) the individual rotating carriers. Each carrier disc 3, 4, 5 bears a joker symbol 11 instead of a numeral at some point on its circumference. A 'special' game counter 12 and a credit indication counter 13 are provided on the front of the apparatus.

A reading window 14 for viewing additional rollers 15, 16 17 bearing a variety of symbols is provided below the counters 12 and 13. If according to the win plan 18 the same symbol appears on all rollers in the reading window 14, then in accordance with the win plan 18 a corresponding number of special games with increased win chances are provided, which are added up in the 'special' game counter 12. The two outer rollers 15 and 17 are each progressively switched clockwise by one step, as indicated by arrows 20, 21, every time the joker symbol 11 of the carrier discs 3, 4, 5 appears in the reading window 19, whilst the roller 16 is progressively switched anti-clockwise by one step, as indicated by arrow 22, on appearance of the joker symbol 11 in the reading window 19. Each carrier disc 3, 4, 5 has an indicator disc 24 associated therewith, and having a recess 25 in the periphery thereof (Fig. 3). The recess 25 corresponds to the position of the joker symbol 11 in the reading window 19 of the corresponding carrier disc. Thus, if the joker symbol appears in the reading window 19, then a feeler lever 26 engages in the recess 25 and thereby closes a pair of contacts 27, which in turn actuates a magnet 28. This magnet 28, as shown in Fig. 3, operates a ratchet mechanism, comprising a lever 29 and ratchet wheel 30, which is directly connected to one of the rollers 15, 16 17. Upon each actuation of the magnet 28 therefore the roller 15, 16, or 17 is progressively switched by one step. Depending upon the form of the ratchet wheel 30, progressive switching may be

clockwise or anti-clockwise. On the periphery of the roller 15, 16 or 17, stop notches 31 are provided into which, on completion of a progressive switching of the roller, a stop tongue 32 engages to stop the roller 15, 16 or 17. A microswitch 34 is provided which is actuated by an adjustable straddle member 33 which is associated with a particular win symbol. With the occurrence of a win, i.e. on appearance of identical symbols in the reading window 14, progressive through switching occurs. This switched circuit guides and controls the counting mechanism magnet 35 of the 'special' game counter 12 via an impulse cam 33a.

In the gaming apparatus 2 of Fig. 2 the joker symbol 11 of the rotatable carrier 3 has associated therewith a series of lamps 36, the joker symbol 11 of the carrier 4, a series of lamps 37, and the joker symbol 11 of the carrier 5, a series of lamps 38. The upper and lower series of lights 36, 38 are progressively switched by one step from left to right as indicated by the arrows 39, 40, on appearance of the joker symbol 11 of the carriers 3 and 5 in the reading window 19. The central series of lamps 37 is progressively switched gradually from right to left, as indicated by arrow 41, on occurrence of the joker symbol 11 of the carrier 4 in the reading window 19. If, for example, the lamps 42 arranged vertically above one another of the lamp series 36, 37, 38 light up, then 50 'special' games are added up in the 'special' game counter 12. Again, in this embodiment of the gaming apparatus, (see Fig. 4) each carrier disc has an indicator disc 24 associated therewith and having a recess 25, corresponding to the joker, into which recess a feeler lever 26 may engage to actuate a pair of contacts 27. These contacts 27 in turn actuate a magnet 28 which in turn controls a ratchet wheel 43 via the lever 29. A slider 44 associated with the ratchet wheel 43 engages corresponding contacts 45 associated with the individual lamps of the series of lamps 36. The win combination, i.e. when three lamps of the series of lamps 36, 37, 38 located one above the other light up, actuates the 'special' games counter 12, via a switching cam 47a and is indicated to the player.

WHAT WE CLAIM IS:—

1. A coin-freed gaming apparatus in which a win or loss is indicated by one of a predetermined combination of symbols indicated on rotatable symbol carriers, wherein a rotatable indicator member is associated with each carrier and has a recess corresponding to a particular symbol, in which recess a feeler lever is engageable, each feeler lever is connected to a contact means for energising a magnet

stepping mechanism for rotating a roller member controlling or bearing additional indicator means or symbols.

5 2. A gaming apparatus as claimed in claim 1, in which each roller is directly connected with a tooth-shaped ratchet wheel with which a lever controlled by the magnet engages.

10 3. A gaming apparatus as claimed in claims 1 and 2, in which stop notches are formed in the periphery of each roller into which a stop tongue can engage.

15 4. A gaming apparatus as claimed in claims 1 to 3, in which, with an arrangement of three rollers, the ratchet wheels associated with the two outer rollers rotate the rollers clockwise and the ratchet wheel associated with the central roller rotates the central roller in an anti-clockwise direction.

20 5. A gaming apparatus according to claim 1, in which the roller members control an

arrangement of three series of lamps and by means of associated ratchet wheels the lamps of two of the series of lamps are switchable stepwise in a first direction and the lamps of the remaining series of lamps are switchable in the opposite direction. 25

6. A coin-freed gaming apparatus substantially as herein described with reference to and as illustrated in Figs. 1 and 3 or Figs. 2 and 4 of the accompanying drawings. 30

POTTS, KERR & CO.,
Chartered Patent Agents,
15, Hamilton Square,
Birkenhead,
Merseyside, L41 6BR.
and
27, Sheet Street,
Windsor,
Berkshire, SL4 1BY.

1476848

COMPLETE SPECIFICATION

3 SHEETS

This drawing is a reproduction of
the Original on a reduced scale

Sheet 1

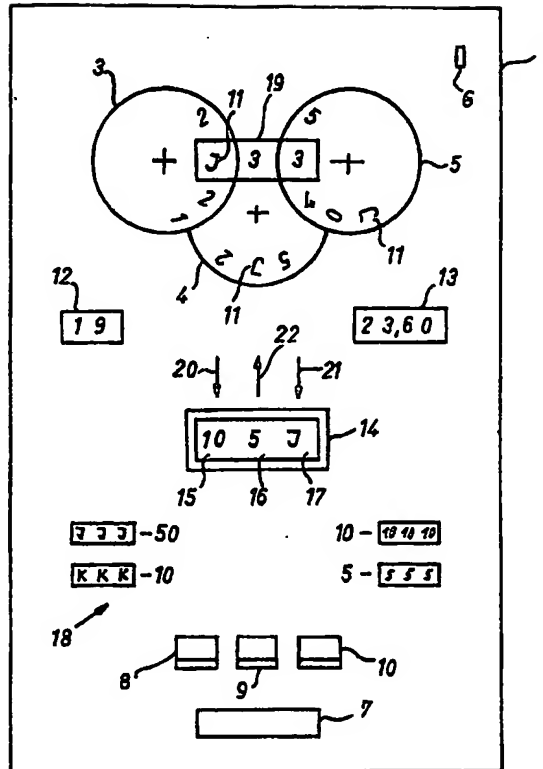


Fig. 1

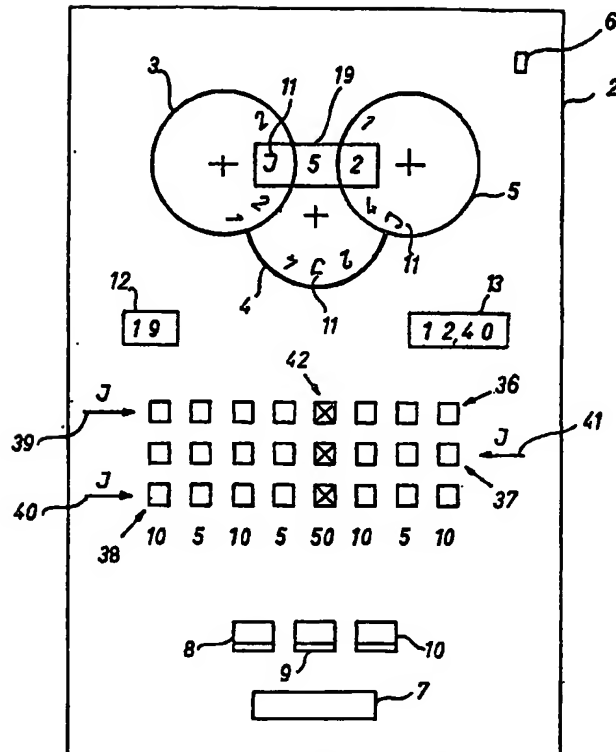
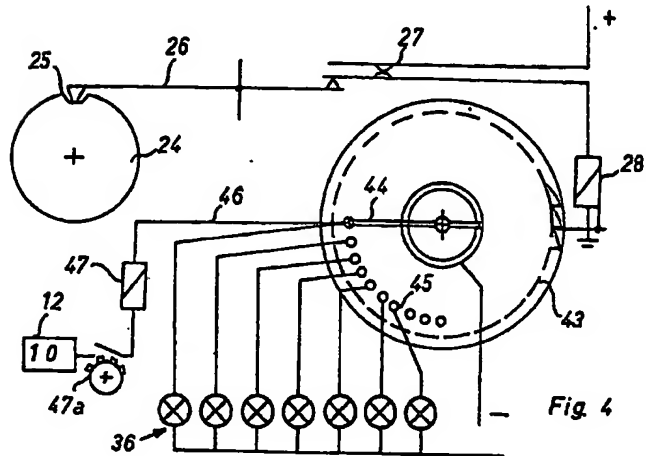
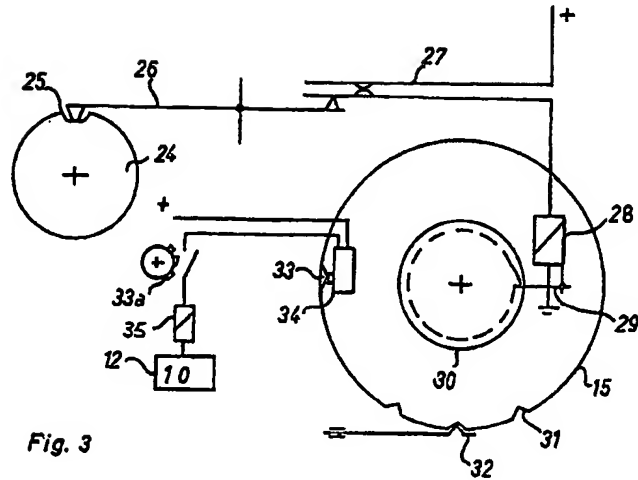


Fig. 2



PATENT SPECIFICATION

(11) 1 476 848

1 476 848

- (21) Application No. 22866/75 (22) Filed 23 May 1975
 (31) Convention Application No. 2425895
 (32) Filed 30 May 1974 in
 (33) Federal Republic of Germany (DT)
 (44) Complete Specification published 16 June 1977
 (51) INT CL³ G07F 17/34
 (52) Index at acceptance
 G4V H8



(54) COIN-FREED GAMING DEVICE SCIENCE REFERENCE LIBRARY

(71) We, LOWEN-AUTOMATEN GERHARD W. SCHULZE of 20-30 Im Tiergarten, 6530 Bingen 12, Federal Republic of Germany; a German Company, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The invention relates to a coin-freed gaming apparatus, having a plurality of rotatable symbol carriers, in which a win or loss condition is determined by predetermined combinations of symbols indicated on the rotatable carriers when at rest.

Such coin-freed gaming machines are known in various forms. Generally the gaming apparatus has three rotatable carriers which may be cylindrical or disc-shaped and on their circumference are provided with symbols. On insertion of a coin, the rotatable carriers are rotated and due to suitable braking devices come successively to rest, whereby on coming to rest a symbol combination appears in a window. This combination is formed of a symbol shown on each carrier. Of the possible symbol combinations only combinations shown on a win plan displayed on the apparatus are designated win combinations and, when they appear in the reading window, the device pays out a win in accordance with the given winning combination.

In order to attract a player to use the device and to entertain him during play different measures have already been adopted. Thus, for example, the individual rotatable symbol carriers have had actuatable switching members associated therewith which permit the symbol carriers to be individually controlled in that the individual rotary bodies are prematurely braked, or after coming to rest determined by the gaming device can be restarted. In this manner the player is able by his own interference with the action of the game to

vary it. This presents the player with the necessary entertainment, whilst the player is convinced that by actuating the additional switching that is able to influence the game in his favour. Therefore the additional actuating members for the individual symbol carriers are in common use.

A coin-freed gaming device is already known in which a plurality of reading windows are provided which, when the rotating symbol carriers come to rest several symbol combinations are displayed of which, however, only one is decisive for ascertaining a win. In another gaming device any player can ascertain at any time how many losing games have lapsed since the last winning game. Herein a device controllable by the rotatable carriers is provided for recording and indicating the games, whereby this device for recording and indicating the number of winless games or failures since a winning game has occurred.

The object of the invention is to provide a more interesting action of play in these known gaming devices and hence to offer the player better entertainment and hence a greater incentive to play in that the play sequence provides a more varied play and additional possibilities of winning.

According to the present invention there is provided a coin-freed gaming apparatus in which a win or loss is indicated by one of a predetermined combination of symbols indicated on rotatable symbol carriers, wherein a rotatable indicator member is associated with each carrier and has a recess corresponding to a particular symbol, in which recess a feeler lever is engageable, each feeler lever is connected to a contact means for energising a magnet stepping mechanism for rotating a roller member controlling or bearing additional indicator means or symbols.

The present invention will be described further, by way of example, with reference to the accompanying drawings, in which:—

Fig. 1 is a schematic view of a gaming

50

55

60

65

70

75

80

85

90

95

apparatus in accordance with the invention;

Fig. 2 is a schematic view of an alternative form of gaming apparatus in accordance with the invention;

Fig. 3 is a view to an enlarged scale showing switching means of a roller of the device shown in Fig. 1; and

Fig. 4 is a view to an enlarged scale showing switching means of a series of lamps of the device shown in Fig. 2.

A gaming device 1 shown in Fig. 1 is provided with three disc-shaped rotatable symbol carriers 3, 4, 5 each of which carries a plurality of symbols. A coin slot 6 is provided in the top right hand corner of the front of the apparatus and a pay-out tray 7 is provided at the bottom of the front of the apparatus. Above the pay-out tray 7 there are switch members 8, 9, 10 used for controlling (i.e. braking or restarting) the individual rotating carriers. Each carrier disc 3, 4, 5 bears a joker symbol 11 instead of a numeral at some point on its circumference. A 'special' game counter 12 and a credit indication counter 13 are provided on the front of the apparatus.

A reading window 14 for viewing additional rollers 15, 16, 17 bearing a variety of symbols is provided below the counters 12 and 13. If according to the win plan 18 the same symbol appears on all rollers in the reading window 14, then in accordance with the win plan 18 a corresponding number of special games with increased win chances are provided, which are added up in the 'special' game counter 12. The two outer rollers 15 and 17 are each progressively switched clockwise by one step, as indicated by arrows 20, 21, every time the joker symbol 11 of the carrier discs 3, 4, 5 appears in the reading window 19, whilst the roller 16 is progressively switched anti-clockwise by one step, as indicated by arrow 22, on appearance of the joker symbol 11 in the reading window 19. Each carrier disc 3, 4, 5 has an indicator disc 24 associated therewith, and having a recess 25 in the periphery thereof (Fig. 3). The recess 25 corresponds to the position of the joker symbol 11 in the reading window 19 of the corresponding carrier disc. Thus, if the joker symbol appears in the reading window 19, then a feeler lever 26 engages in the recess 25 and thereby closes a pair of contacts 27, which in turn actuates a magnet 28. This magnet 28, as shown in Fig. 3, operates a ratchet mechanism, comprising a lever 29 and ratchet wheel 30, which is directly connected to one of the rollers 15, 16, 17. Upon each actuation of the magnet 28 therefore the roller 15, 16, or 17 is progressively switched by one step. Depending upon the form of the ratchet wheel 30, progressive switching may be

clockwise or anti-clockwise. On the periphery of the roller 15, 16 or 17, stop notches 31 are provided into which, on completion of a progressive switching of the roller, a stop tongue 32 engages to stop the roller 15, 16 or 17. A microswitch 34 is provided which is actuated by an adjustable straddle member 33 which is associated with a particular win symbol. With the occurrence of a win, i.e. on appearance of identical symbols in the reading window 14, progressive through switching occurs. This switched circuit guides and controls the counting mechanism magnet 35 of the 'special' game counter 12 via an impulse cam 33a.

In the gaming apparatus 2 of Fig. 2 the joker symbol 11 of the rotatable carrier 3 has associated therewith a series of lamps 36, the joker symbol 11 of the carrier 4, a series of lamps 37, and the joker symbol 11 of the carrier 5, a series of lamps 38. The upper and lower series of lights 36, 38 are progressively switched by one step from left to right as indicated by the arrows 39, 40, on appearance of the joker symbol 11 of the carriers 3 and 5 in the reading window 19. The central series of lamps 37 is progressively switched gradually from right to left, as indicated by arrow 41, on occurrence of the joker symbol 11 of the carrier 4 in the reading window 19. If, for example, the lamps 42 arranged vertically above one another of the lamp series 36, 37, 38 light up, then 50 'special' games are added up in the 'special' game counter 12. Again, in this embodiment of the gaming apparatus, (see Fig. 4) each carrier disc has an indicator disc 24 associated therewith and having a recess 25, corresponding to the joker, into which recess a feeler lever 26 may engage to actuate a pair of contacts 27. These contacts 27 in turn actuate a magnet 28 which in turn controls a ratchet wheel 43 via the lever 29. A slider 44 associated with the ratchet wheel 43 engages corresponding contacts 45 associated with the individual lamps of the series of lamps 36. The win combination, i.e. when three lamps of the series of lamps 36, 37, 38 located one above the other light up, actuates the 'special' games counter 12, via a switching cam 47a and is indicated to the player.

WHAT WE CLAIM IS:-

1. A coin-free gaming apparatus in which a win or loss is indicated by one of a predetermined combination of symbols indicated on rotatable symbol carriers, wherein a rotatable indicator member is associated with each carrier and has a recess corresponding to a particular symbol, in which recess a feeler lever is engageable, each feeler lever is connected to a contact means for energising a magnet

V

2
70
75
80
85
90
95
100
105
110
115
120
125

3 1,476,848 3

stepping mechanism for rotating a roller member controlling or bearing additional indicator means or symbols.

2. A gaming apparatus as claimed in claim 1, in which each roller is directly connected with a tooth-shaped ratchet wheel with which a lever controlled by the magnet engages.

3. A gaming apparatus as claimed in claims 1 and 2, in which stop notches are formed in the periphery of each roller into which a stop tongue can engage.

4. A gaming apparatus as claimed in claims 1 to 3, in which, with an arrangement of three rollers, the ratchet wheels associated with the two outer rollers rotate the rollers clockwise and the ratchet wheel associated with the central roller rotates the central roller in an anti-clockwise direction.

5. A gaming apparatus according to claim 1, in which the roller members control an arrangement of three series of lamps and by means of associated ratchet wheels the lamps of two of the series of lamps are switchable stepwise in a first direction and the lamps of the remaining series of lamps are switchable in the opposite direction.

6. A coin-freed gaming apparatus substantially as herein described with reference to and as illustrated in Figs. 1 and 3 or Figs. 2 and 4 of the accompanying drawings.

POTTS, KERR & CO.,
Chartered Patent Agents,
15, Hamilton Square,
Birkenhead,
Merseyside, L41 6BR.
and
27, Sheet Street,
Windsor,
Berkshire, SL4 1BY.

Printed for Her Majesty's Stationery Office, by the Courier Press, Leamington Spa, 1977
Published by The Patent Office, 25 Southampton Buildings, London, WC2A 1AY, from which copies may be obtained.

1476848 COMPLETE SPECIFICATION

3 SHEETS This drawing is a reproduction of the Original on a reduced scale
Sheet 1

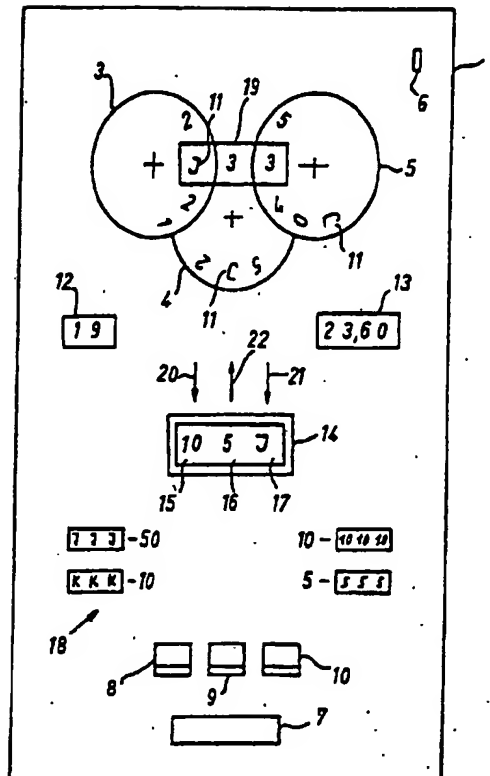


Fig. 1

BEST AVAILABLE COPY

1476848 COMPLETE SPECIFICATION

3 SHEETS This drawing is a reproduction of
the Original on a reduced scale
Sheet 2

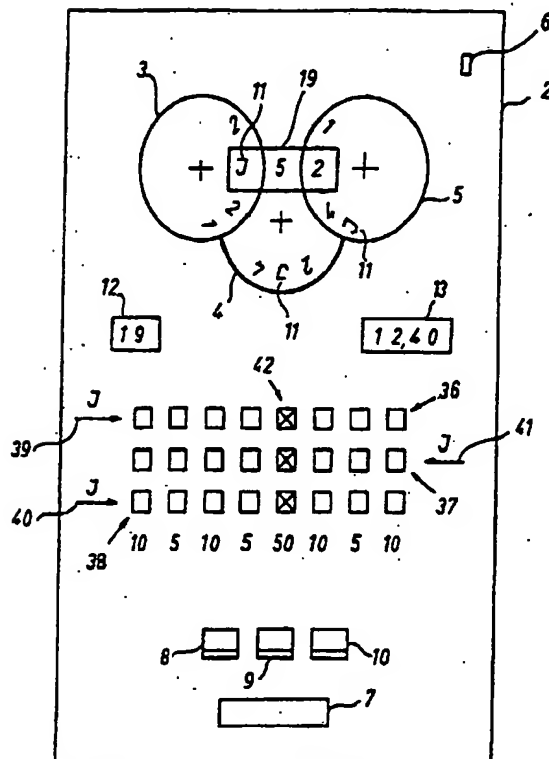


Fig. 2

BEST AVAILABLE COPY

1476848

COMPLETE SPECIFICATION

3 SHEETS

This drawing is a reproduction of
the Original on a reduced scale

Sheet 3

